

15-039-20998

21-25-26w

165

MD



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

21 2 26W Decatur KS

Jolly 1-21

Start Date: 2007.05.02 @ 02:56:42

End Date: 2007.05.02 @ 10:01:32

Job Ticket #: 27888 DST #: 1

**KCC
AUG 20 2007
CONFIDENTIAL**

**RECEIVED
KANSAS CORPORATION COMMISSION**

AUG 23 2007

**CONSERVATION DIVISION
WICHITA, KS**

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin Drilling Company

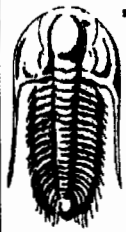
Jolly 1-21

21 2 26W Decatur KS

DST # 1

Toronto - Lansing A&

2007.05.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

Jolly 1-21

21 2 26W Decatur KS

Job Ticket: 27888

DST#: 1

Test Start: 2007.05.02 @ 02:56:42

GENERAL INFORMATION:

Formation: **Toronto - Lansing A&**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 04:28:12

Time Test Ended: 10:01:32

Test Type: **Conventional Bottom Hole**

Tester: **Jake Fahrenbruch**

Unit No: **22**

Interval: **3444.00 ft (KB) To 3521.00 ft (KB) (TVD)**

Reference Elevations: **2608.00 ft (KB)**

Total Depth: **3521.00 ft (KB) (TVD)**

2603.00 ft (CF)

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **5.00 ft**

Serial #: 6799

Inside

Press@RunDepth: **259.40 psig @ 3445.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2007.05.02**

End Date:

2007.05.02

Last Calib.: **2007.05.02**

Start Time: **02:56:44**

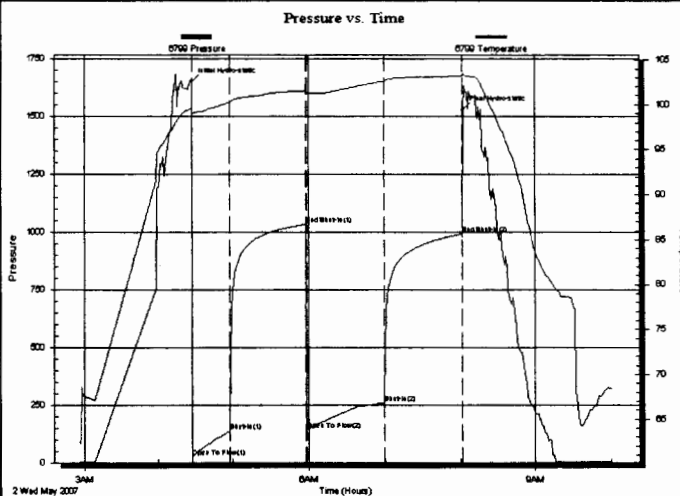
End Time:

10:01:31

Time On Btm: **2007.05.02 @ 04:27:52**

Time Off Btm: **2007.05.02 @ 08:02:12**

TEST COMMENT: IF Fair blow built to BOB in 29 minutes.
ISI Bled off no blow back
FF Fair blow built to BOB in 45 minutes.
FSI Bled off no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1651.96	99.53	Initial Hydro-static
1	23.52	99.06	Open To Flow (1)
31	135.55	100.21	Shut-In (1)
91	1033.52	101.55	End Shut-In (1)
91	140.27	101.14	Open To Flow (2)
152	259.40	102.62	Shut-In (2)
214	991.88	103.16	End Shut-In (2)
215	1529.39	103.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
195.00	SMCW 10%M 90%W	0.96
120.00	WM 45%W 55%M	0.59
150.00	WCM 18%W 82%M	0.74
60.00	Drig Mud w/slight Oil trace: >1%Oil	0.66
0.00	RW=.17 OHMS@58degF=54000ppmCh	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

Jolly 1-21

250 N Water Ste 300
Wichita KS 67202

21 2 26W Decatur KS

Job Ticket: 27888

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2007.05.02 @ 02:56:42

Tool Information

Drill Pipe:	Length: 2966.00 ft	Diameter: 3.80 inches	Volume: 41.61 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 485.00 ft	Diameter: 2.25 inches	Volume: 2.39 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 44.00 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3444.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	100.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3426.00	
Hydraulic tool	5.00			3431.00	
Safety Joint	3.00			3434.00	
Packer	5.00			3439.00	23.00 Bottom Of Top Packer
Packer	5.00			3444.00	
Stubb	1.00			3445.00	
Recorder	0.00	6799	Inside	3445.00	
Perforations	9.00			3454.00	
Blank Spacing	64.00			3518.00	
Recorder	0.00	10270	Outside	3518.00	
Bullnose	3.00			3521.00	77.00 Bottom Packers & Anchor
Total Tool Length:		100.00			

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KANSAS CORPORATION COMMISSION

AUG 23 2007

CONSERVATION DIVISION
WICHITA, KS



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

Jolly 1-21

250 N Water Ste 300
Wichita KS 67202

21 2 26W Decatur KS

Job Ticket: 27888

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2007.05.02 @ 02:56:42

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
195.00	SMCW 10%M 90%W	0.959
120.00	WM 45%W 55%M	0.590
150.00	WCM 18%W 82%M	0.738
60.00	Drig Mud w/slight Oil trace: >1%Oil	0.659
0.00	RW=.17 OHMS@58degF=54000ppmChl	0.000

Total Length: 525.00 ft

Total Volume: 2.946 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

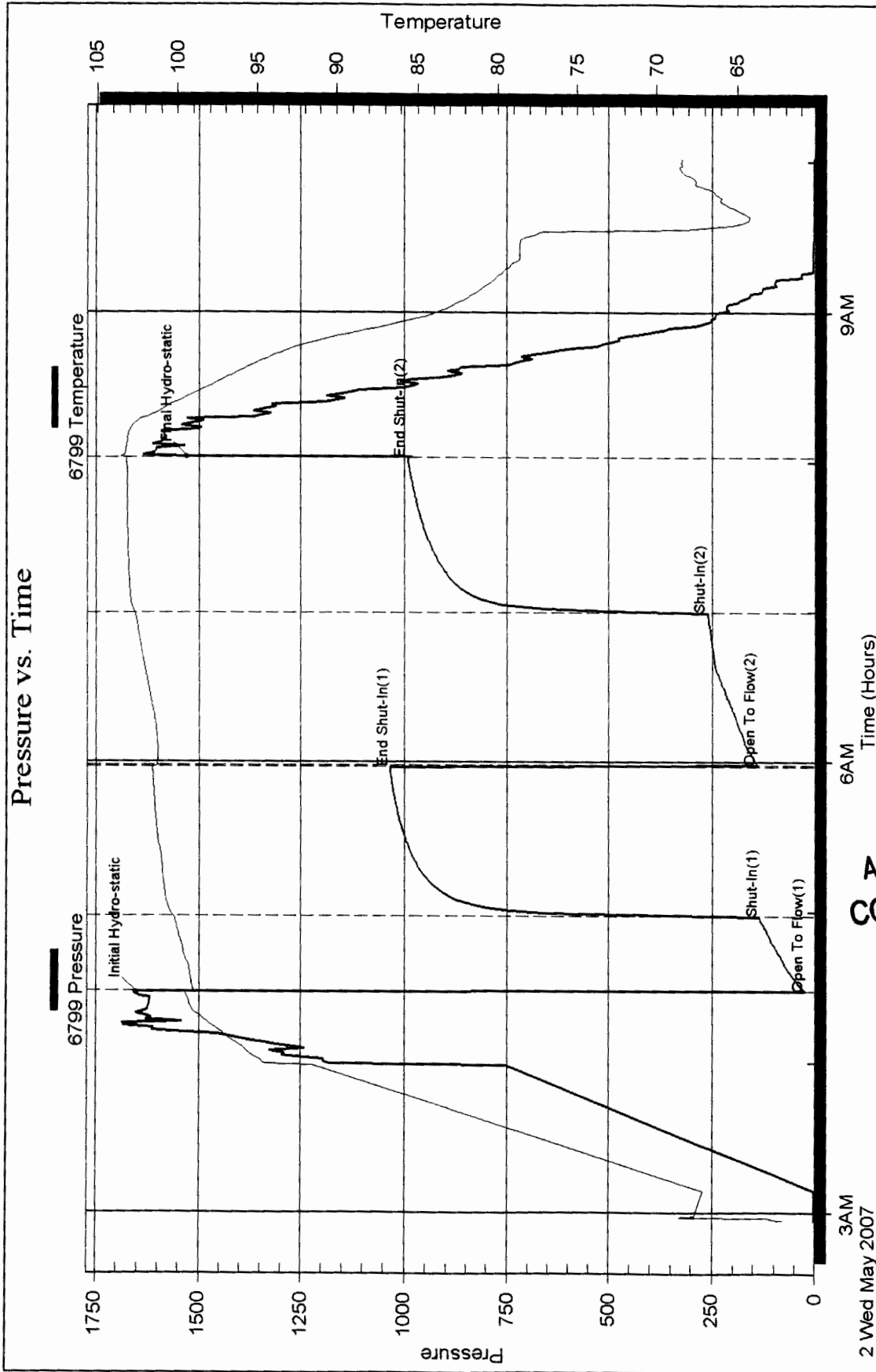
Serial #: 6799

Inside

Murfin Drilling Company

21 2 26W Decatur KS

DST Test Number: 1

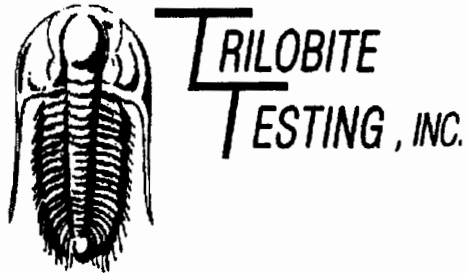


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Trilobite Testing, Inc

Ref. No: 27888

Printed: 2007.05.08 @ 11:34:13 Page 5



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

21 2 26W Decatur KS

Jolly 1-21

Start Date: 2007.05.02 @ 19:30:01

End Date: 2007.05.03 @ 02:12:21

Job Ticket #: 27889 DST #: 2

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CONFIDENTIAL

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

Jolly 1-21

21 2 26W Decatur KS

Job Ticket: 27889

DST#: 2

Test Start: 2007.05.02 @ 19:30:01

GENERAL INFORMATION:

Formation: **Lansing "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:52:11

Time Test Ended: 02:12:21

Test Type: Conventional Bottom Hole

Tester: Jake Fahrenbruch

Unit No: 22

Interval: **3541.00 ft (KB) To 3610.00 ft (KB) (TVD)**

Total Depth: 3610.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2608.00 ft (KB)

2603.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6799

Inside

Press@RunDepth: 67.13 psig @ 3542.00 ft (KB)

Start Date: 2007.05.02

End Date:

2007.05.03

Start Time: 19:30:03

End Time:

02:12:20

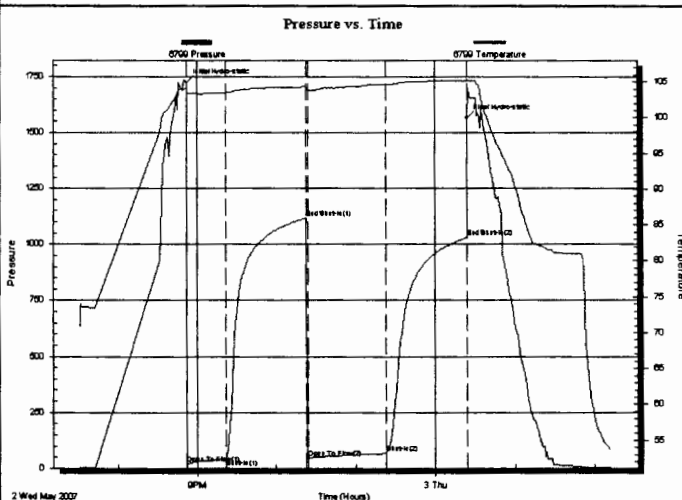
Capacity: 7000.00 psig

Last Calib.: 2007.05.03

Time On Btm: 2007.05.02 @ 20:52:01

Time Off Btm: 2007.05.03 @ 00:23:41

TEST COMMENT: IF Weak building blow built to 3" in bucket
ISI Bled off no blow back
FF Very weak blow built to a weak surface blow in 45 minutes.
FSI Bled off no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1725.26	104.03	Initial Hydro-static
1	19.88	103.20	Open To Flow (1)
30	42.02	103.47	Shut-in(1)
91	1116.70	104.29	End Shut-in(1)
92	46.36	103.92	Open To Flow (2)
151	67.13	104.60	Shut-in(2)
212	1029.35	105.08	End Shut-in(2)
212	1565.82	105.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Oil	0.01
22.00	HOCM 24%O 76%M	0.11
60.00	OCM 10%O 90%M	0.30

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

Jolly 1-21

21 2 26W Decatur KS

Job Ticket: 27889

DST#: 2

Test Start: 2007.05.02 @ 19:30:01

Tool Information

Drill Pipe:	Length: 3059.00 ft	Diameter: 3.80 inches	Volume: 42.91 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 485.00 ft	Diameter: 2.25 inches	Volume: 2.39 bbl	Weight to Pull Loose: 65000.00 lb
			Total Volume: 45.30 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3541.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	92.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

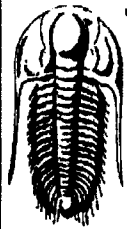
Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Shut In Tool	5.00			3523.00	
Hydraulic tool	5.00			3528.00	
Safety Joint	3.00			3531.00	
Packer	5.00			3536.00	23.00 Bottom Of Top Packer
Packer	5.00			3541.00	
Stubb	1.00			3542.00	
Recorder	0.00	6799	Inside	3542.00	
Perforations	32.00			3574.00	
Blank Spacing	33.00			3607.00	
Recorder	0.00	10270	Outside	3607.00	
Bullnose	3.00			3610.00	69.00 Bottom Packers & Anchor

Total Tool Length: 92.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

Jolly 1-21

250 N Water Ste 300
Wichita KS 67202

21 2 26W Decatur KS

Job Ticket: 27889

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2007.05.02 @ 19:30:01

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Oil	0.015
22.00	HOCM 24%O 76%M	0.108
60.00	OCM 10%O 90%M	0.295

Total Length: 85.00 ft

Total Volume: 0.418 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

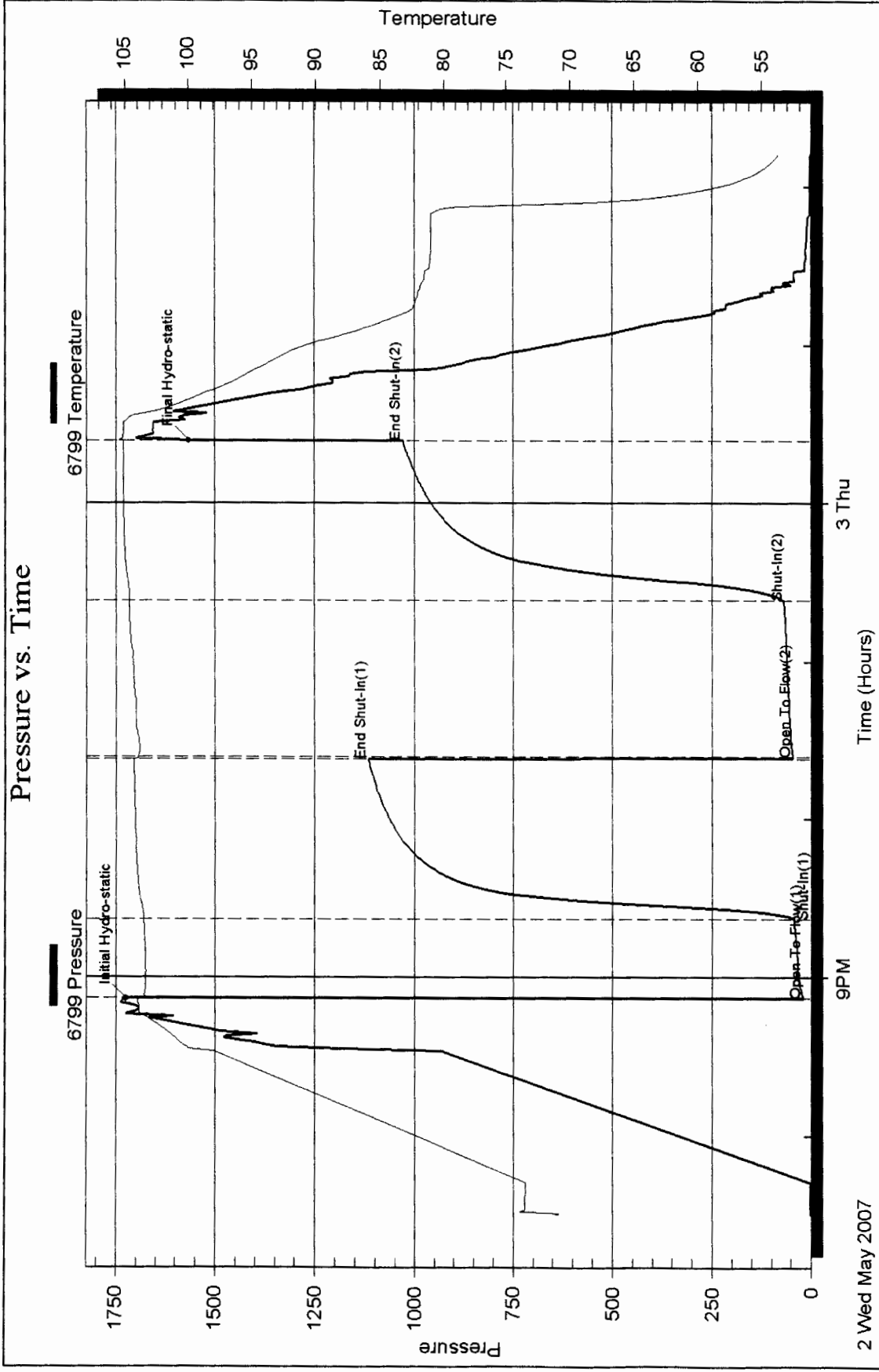
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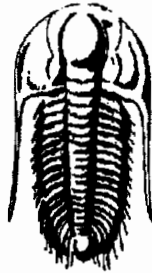
Inside

Murfin Drilling Company

21 2 26W Decatur KS

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

21 2 26W Decatur KS

Jolly 1-21

Start Date: 2007.05.03 @ 09:12:29

End Date: 2007.05.03 @ 16:19:29

Job Ticket #: 27890 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul Gunzelman

Jolly 1-21

21 2 26W Decatur KS

Job Ticket: 27890

DST#: 3

Test Start: 2007.05.03 @ 09:12:29

GENERAL INFORMATION:

Formation: **KC "J&K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:35:09

Time Test Ended: 16:19:29

Test Type: Conventional Bottom Hole

Tester: Jake Fahrenbruch

Unit No: 22

Interval: **3612.00 ft (KB) To 3666.00 ft (KB) (TVD)**

Total Depth: 3666.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2608.00 ft (KB)

2603.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6799

Inside

Press@RunDepth: 185.13 psig @ 3613.00 ft (KB)

Start Date: 2007.05.03

End Date:

2007.05.03

Start Time: 09:12:31

End Time:

16:19:29

Capacity: 7000.00 psig

Last Calib.: 2007.05.03

Time On Btm: 2007.05.03 @ 10:34:39

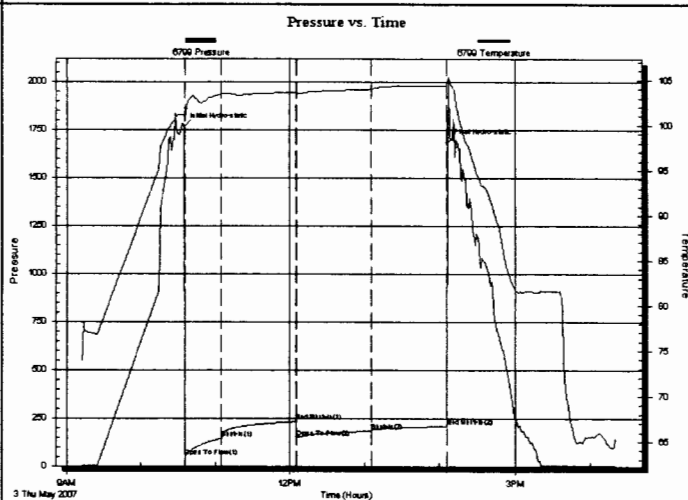
Time Off Btm: 2007.05.03 @ 14:06:29

TEST COMMENT: IF Fairly strong blow BOB in 15 min 15 sec

ISI Bled off weak surface blow back

FF Weak blow built to 6" in bucket

FSI Bled off weak surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.85	101.18	Initial Hydro-static
1	48.67	100.68	Open To Flow (1)
31	144.22	103.43	Shut-In (1)
91	232.91	103.64	End Shut-In (1)
91	151.24	103.61	Open To Flow (2)
151	185.13	104.00	Shut-In (2)
212	209.36	104.38	End Shut-In (2)
212	1684.63	105.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	Free Oil	0.34
140.00	GCMdyOil 10%G 29%M 61%O	0.69
120.00	GCSMOO 20%G 5%M 75%O	0.59
60.00	GCMdyOil 14%G 35%M 51%O	0.30
0.00	Gravity= approx 16 API Approx 60' GP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

Jolly 1-21

250 N Water Ste 300
Wichita KS 67202

21 2 26W Decatur KS

Job Ticket: 27890

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2007.05.03 @ 09:12:29

Tool Information

Drill Pipe:	Length: 3118.00 ft	Diameter: 3.80 inches	Volume: 43.74 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 485.00 ft	Diameter: 2.25 inches	Volume: 2.39 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	46.13 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3612.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	54.00 ft				
Tool Length:	77.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3594.00	
Hydraulic tool	5.00			3599.00	
Safety Joint	3.00			3602.00	
Packer	5.00			3607.00	23.00 Bottom Of Top Packer
Packer	5.00			3612.00	
Stubb	1.00			3613.00	
Recorder	0.00	6799	Inside	3613.00	
Perforations	18.00			3631.00	
Blank Spacing	32.00			3663.00	
Recorder	0.00	10270	Outside	3663.00	
Bullnose	3.00			3666.00	54.00 Bottom Packers & Anchor

Total Tool Length: 77.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

Jolly 1-21

250 N Water Ste 300
Wichita KS 67202

21 2 26W Decatur KS

Job Ticket: 27890

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2007.05.03 @ 09:12:29

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	Free Oil	0.344
140.00	GCMdyOil 10%G 29%M 61%O	0.688
120.00	GCSMCO 20%G 5%M 75%O	0.590
60.00	GCMdyOil 14%G 35%M 51%O	0.295
0.00	Gravity= approx 16 API Approx 60 ' GIP	0.000

Total Length: 390.00 ft

Total Volume: 1.917 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 3

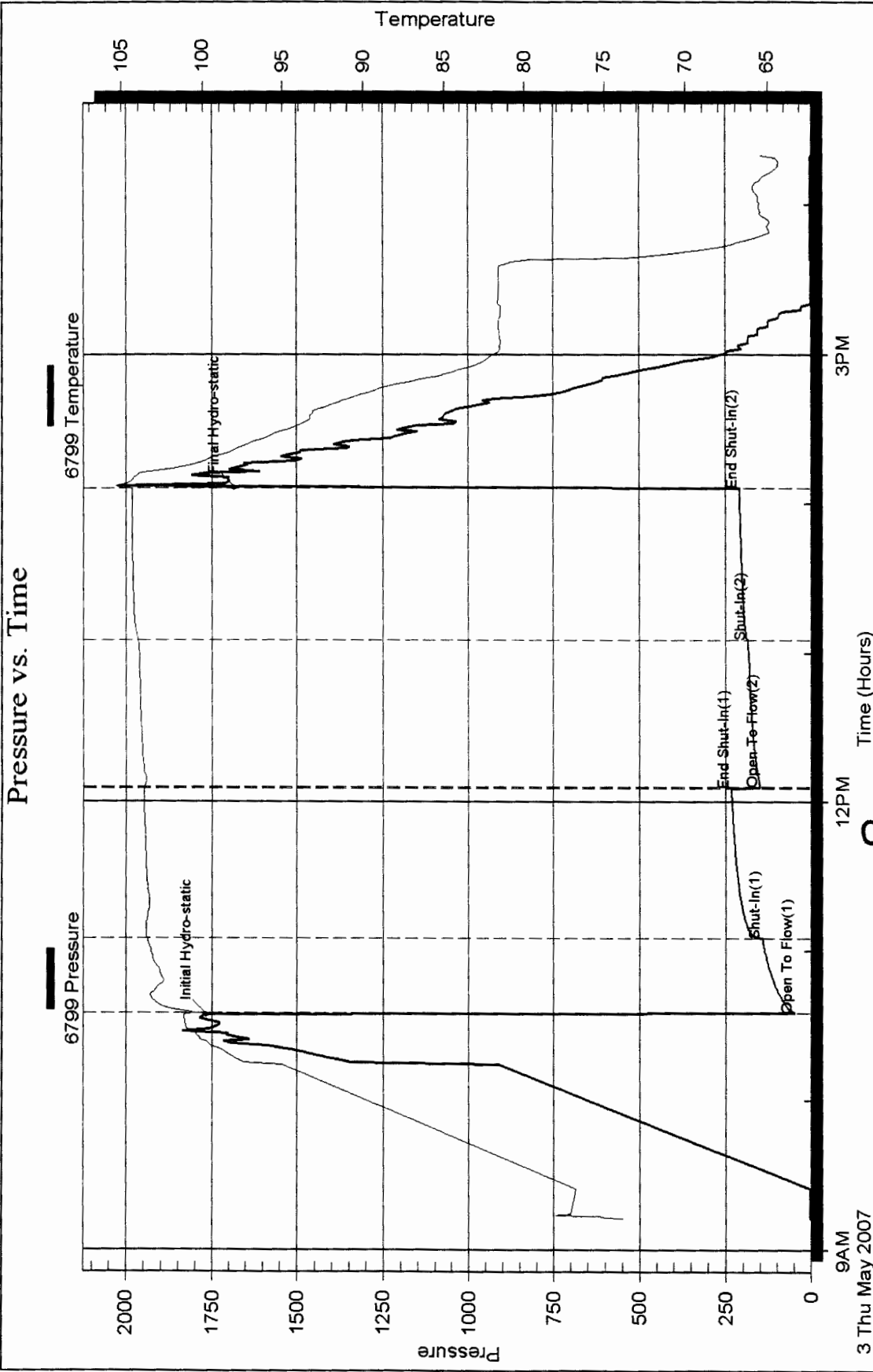
21 2 26W Decatur KS

Murfin Drilling Company

Inside

Serial #: 6799

Pressure vs. Time



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Ref. No: 27890

Trilobite Testing, Inc